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Recycling Protects Our Natural Resources



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Recycling Protects

Mississippi Delta



support and participation. Recycling programs and educational efforts are making a difference in the Mississippi Delta as well as across the State. This publication briefly describes examples of successful recycling and conservation programs in the Mississippi Delta.

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Waste Pesticide Disposal Program

Waste or unused agricultural pesticides have long been a disposal problem to farmers, and they present environmental hazards as well. This problem is being addressed through the Mississippi Waste Pesticide Disposal Program. Since 1994, more than 600 farmers, landowners, and other property owners have taken advantage of the program and have disposed of more than 550,000 pounds of pesticides through a licensed hazardous waste contractor.

In addition to environmental benefits, farmers have saved more than \$600,000 in disposal costs. To participate, farmers take their waste pesticides to a designated site where they transfer ownership to a hazardous waste contractor.

Farmers participate in the program because it offers them a simple way to dispose of waste pesticides. Their efforts are also reducing environmental risks to water quality, the environment, and human health.



Pesticide Container Disposal Program

Pesticides are an important part of food and fiber production in the Mississippi Delta. Each year farmers are faced with disposing of more than 2 million used pesticide containers. If these containers are not properly rinsed, as much as one ounce of pesticide can remain in the container. Since disposal options have been limited, containers often were piled up on farms, and their contents washed by rain or flood waters into lakes, streams, and rivers, increasing the risk of pollution.

In 1989, the Mississippi Department of Agriculture and Commerce and the Mississippi Cooperative Extension Service began a pilot program in Washington County to determine the feasibility of recycling pesticide containers. Since then, more than 3.1 million pounds of pesticide containers from 40 counties have been recycled. The containers are collected, granulated, and shipped to designated chemical companies for additional processing and use. This program helps farmers reduce the amount of pesticides they have to purchase, while protecting the environment. It is estimated that by properly rinsing these containers and using the rinse water on labeled crops, farmers in Mississippi save the cost of 16,000 gallons of pesticides each year. Forty other states have adopted this recycling program.



Tail Water Recovery Systems

The idea of recycling farm irrigation water is quickly catching on in the Mississippi Delta. Better known to farmers as tail water recovery (TWR), these systems collect, store, and transport irrigation tail water for reuse in a farm irrigation distribution system. The primary purpose of the TWR is to conserve farm irrigation ground water by collecting surface runoff water from the field and redirecting it back into farm irrigation operation. A study revealed that a tail water recovery system conserves 3 inches of runoff each year. The National Resource Conservation Service is leading the way to provide sound technical assistance and advice to farmers interested in tail water recovery systems.

Used Oil Recycling Program

Many farmers stockpile used oil and often store it for use during the winter to heat their farm shops. However, supplies of used oil grow faster than the farmers can burn it, creating a disposal problem. In Washington County, the NRCS located a company that would pick up oil without charge from local farms if sufficient quantities were collected. Farmers can now call the Washington County Soil and Water Conservation District Office to have their oil collected. By the end of 1996, this partnership had disposed of more than 6,000 gallons of used oil, which is either recycled or used as an alternative fuel.

Gin Waste Recycling

Waste from cotton gins is an unwanted by-product that accumulates every year in the Mississippi Delta. For every bale of cotton, there are 500 pounds of lint cotton, 800 pounds of seed, and 100 pounds of waste. In 1994, the Natural Resource Conservation Service, in cooperation with other agencies and private citizens, developed a plan for recycling gin waste into compost that farmers could reapply to their fields. Gin waste is collected in a circular pile and kept wet with a prescribed amount of water. Treating gin waste through composting is beneficial to cotton producers because it saves time and money on fertilizer and other soil conditioners.

Polypipe Recycling Program

Used polypipe (flexible irrigation tubing) also creates disposal problems, especially for Delta farmers. The disposal problem is compounded by the fact that polypipe has a relatively short useful life, usually about a year or so. Disposal options are limited because landfills are reluctant to accept the polypipe, and it is illegal to burn or bury it. To combat this problem, Cooperative Extension offices and local boards of supervisors are coordinating a polypipe recycling program. Through this recycling program, used polypipe is blended with resins to produce new polypipe, garbage bags, or similar materials. By recovering their used polypipe and sending it to a recycling facility, farmers are reducing the burden on landfills and creating new markets for this waste product. An estimated 2.1 million pounds of polypipe are available for recycling each year.



Newspaper Recycling Program

Although many recycling efforts have focused on agriculture, a resident of Greenwood initiated a very important program: citywide newspaper recycling. A coalition of city officials, community leaders, and federal and state agencies developed the plan. They contacted a recycling firm in Jackson who agreed to

purchase the newspapers and provide a trailer to store and transport them to the recycling center. The Northwest Resource Conservation and Development Council received a \$12,000 grant from the U.S. Forest Service to furnish support, training, and materials. The Forest Service also provided a full-time coordinator to help the project get started.

More than 10 tons of newspaper, which ordinarily would have gone to the landfill, are recycled each month. This is another example of private citizens, public officials, and state and federal agencies working together to provide a solution for a potentially serious environmental problem.



Chemical Stewardship Program for Cotton Farmers

Concerned about off-target movement and potential misapplications of pesticides, a task force was developed in 1995 to encourage environmental stewardship among cotton farmers. The task force was made up of representatives from state government, educational institutions, agricultural interest groups, and private companies. In 1995, the group launched a pilot program that included newsletters, a training video, and public service announcements. The goal was to motivate cotton farmers, agricultural consultants and dealers, distributors, and pesticide applicators to practice stewardship in their cotton

production practices. In 1996, the National Cotton Council used the principles developed in Mississippi's pilot program to create a national cotton stewardship program, "Careful by Nature."



Summary

Conservation of the Delta's natural resources through recycling is a positive solution for everyone. Farmers can dispose of unwanted by-products in cost effective ways that also protect the environment, and all citizens benefit from a safer, cleaner environment. The programs mentioned in this publication are by no means the only conservation efforts underway in Mississippi or in the Mississippi Delta. They do, however, represent successful efforts initiated in Mississippi by federal and state agencies as well as by private citizens. Working together, we are making a real difference in protecting our environment for future generations.

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